REMARKS

The Examiner is thanked for the thorough examination of the present application. The patentability of the claims is discussed below.

I. The Claimed Invention

As recited in independent Claim 1, for example, the cryptographic device includes a cryptographic module and a communications module removably coupled thereto. More particularly, the cryptographic module comprises a first housing, a user network interface carried by the first housing, a cryptographic processor carried by the first housing and coupled to the user network interface, and a first connector carried by the first housing and coupled to the cryptographic processor. The communications module includes a second housing, a second connector carried by the second housing and removably mateable with the first connector of the cryptographic module, a network interface carried by the second housing and coupled to the second connector, and at least one logic device being polled by the cryptographic processor to determine a type of communications module and an operating status of the communications module.

Independent Claim 13 is directed to a related cryptographic device and further recites the user Local Area Network (LAN). Independent Claim 23 is directed to a related

communications method, and independent Claim 27 is directed to a related communications system.

II. The Claims Are Patentable

The Examiner rejected independent Claims 1, 13, 23, and 27 over Dhir et al. in view of Cheng in further view of Allmond et al. Dhir et al. is directed to a programmable integrated circuit, namely a field programmable gate array (FPGA), that can be used to handle different wireless local area network (WLAN) communication specifications. The integrated circuit includes a transceiver coupled to programmable gates, a memory coupled to the programmable gates for storing instructions for programming a first portion of the programmable gates with a selected one of a first type of a medium access layer and a second type of a medium access layer. The first type of the medium access layer is different from the second type of medium access layer, though both the first type of the medium access layer and the second type of the media access layer are compatible with the transceiver.

The Examiner correctly recognized that Dhir et al. fails to teach a cryptographic module and a communications module that are removably coupled to one another, and at least one logic device being polled by the cryptographic processor to determine a type of communications module and an operating status of the communications module. The Examiner turned to Cheng to provide some of these critical deficiencies. More

particularly, the Examiner contended that Cheng discloses a cryptographic module and a communications module that are removably coupled to one another. Cheng is directed to an add-on card for a computer that is detachable from the computer and allows the computer to communicate with both wired and wireless networks. The add-on card includes an access control circuit, volatile and non-volatile memory, a wireless transmission module, and a network connection module. The network connection module has both an antenna for communicating with a wireless network, and a standard network cable port for connecting to a wired network.

The Examiner further correctly recognized that even a selective combination of Dhir et al. and Cheng fails to disclose at least one logic device being polled by the cryptographic processor to determine a type of communications module and an operating status of the communications module. The Examiner turned to Allmond et al. for these critical deficiencies.

Allmond et al. is directed to an automatic communications protocol detection system. More particularly, Allmond et al. discloses a network for interconnecting a plurality of data devices. Data devices include any source or destination of data to the network, including a computer, workstation, file server, hub, NIC, concentrator, modem, printer, or other device that can receive or transmit data in the network. The network also includes an adaptive repeater.

The data devices may be coupled to the repeater via connectors, which may be RJ-45, FDDI, BNC, and SMA connectors, for example.

Applicants submit that the Examiner mischaracterized Allmond et al. More particularly, the Examiner contended that Col. 3, line 47 to Col. 4, line 3 of Allmond et al., which are reproduced below for reference, somehow disclose a logic device being polled by the cryptographic processor to determine a type of communications module and an operating status of the communications module.

> Pursuant to a method according to the present invention, the 10Base-T transceiver is initially enabled for detecting link pulses. When the 10Base-T transceiver detects link pulses and asserts a link signal, the NIC informs the processor by interrupting the processor or by setting a bit in a register polled by the processor. In response, the processor enables the 100Base-T transceiver to determine if it detects link pulses. If so, the 100Base-T transceiver is used to establish communications between the network device and the MAC. If not, the 10Base-T transceiver is used to establish communications. It is noted that jiggling of the connector while making the connection might otherwise result in erroneous detection of the communication protocol used by the network device being connected. Thus, the 100Base-T transceiver is re-enabled a predetermined number of times while the link signal is monitored to determine if the network device is a 100 Mbps device. If the 100Base-T transceiver detects the network

> device during any of these iterations, it is used for communications. If not, and if the 10Base-T transceiver still detects the network device, then the 10Base-T transceiver is used to establish communications. Alternatively, the 100Base-T transceiver may be enabled for a predetermined time period for determining if the network device is a 100 Mbps device.

Indeed, the portions of Allmond et al. referenced by the Examiner merely disclose a processor in a network interface card (NIC) that polls a register to selectively enable the 100Base-T transceiver. The bit in the register is set when the 10Base-T transceiver detects link pulses and asserts a link signal. In other words, the bit only corresponds to the link status of the 10Base-T transceiver, and thus, the processor cannot determine a type of communications module. Nowhere in the above-referenced passage or anywhere else in Allmond et al. does it disclose a logic device being polled by the cryptographic processor to determine a type of communications module and an operating status of the communications module. Dhir et al. and Cheng also fail to supply these critical deficiencies. Accordingly, independent Claim 1, 13, 23 and 27 are patentable for at least this reason alone.

Moreover, Applicants further submit that even a selective combination of the prior art fails to disclose the at least one logic device also permitting the cryptographic processor to configure the network LAN interface, as recited in

independent Claim 13. Instead, programmable input/output blocks are provided with a radio and have configuration logic blocks coupled thereto. The configuration logic blocks are selectively programmed with a medium access control layer. (See Dhir et al., Col. 3, lines 1-17). Moreover, programmable logic fabric 120 of Dhir et al. includes fixed logic components embedded therein allowing high speed data processing. (See Dhir et al., Col. 4, line 67- Col. 5, line 2). Still further, the wireless local area network transceiver 301, which the Examiner contended corresponds to the claimed network LAN interface, merely receives information from or provides information to antenna 336. (See Dhir et al., Col. 8, lines 23-30). Indeed, nowhere in Dhir et al. does it disclose the at least one logic device also permitting the cryptographic processor to configure the network LAN interface. Cheng and Allmond et al. similarly fail to disclose the at least one logic device also permitting the cryptographic processor to configure the network LAN interface. Accordingly, even a selective combination of the prior art fails to disclose the claimed invention, as recited in independent Claim 13.

Applicants further submit that the Examiner's combination of Dhir et al., Cheng, and Allmond et al. is improper, as a person having ordinary skill in the art would not turn to Cheng and Allmond et al. to combine with Dhir et al. in an attempt to arrive at the claimed invention. More particularly, Dhir et al. is directed to a programmable logic

device for a WLAN. The communications module and the cryptographic module are purposely on a single circuit board (330), as illustrated in Fig. 8 of Dhir et al. Combining Dhir et al. with Cheng so that the communications module and the cryptographic module would be removably coupled would require splitting the communications and cryptographic modules from the single circuit board.

Moreover, using Cheng as a motivation to modify Dhir et al. would result in arbitrarily dividing the circuitry of Dhir et al. between the antenna 336 and the WLAN transceiver 301, the antenna being outside the circuit board and downstream from both the communications and cryptographic modules. This is because Cheng discloses removably coupling the communications modules to a connector portion, including a physical connector and antenna. Accordingly, even if there was some proper motivation to combine Dhir et al. and Cheng, the claimed invention is not produced because the removable coupling is not between the communications module and the cryptographic module.

Still further, one of ordinary skill in the art would not turn to the communication protocol detection system of Allmond et al. to combine with the programmable integrated circuit from Dhir et al. and the add-on card for a computer that is detachable from the computer and allows the computer to communicate with both wired and wireless networks from Cheng. In other words, the Examiner is attempting to combine an FPGA for a wireless LAN, with a PCMCIA network add-on card, and a

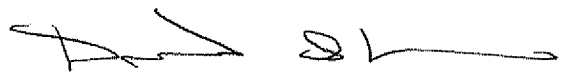
network interface card. Applicants submit that the Examiner is merely combining disjoint pieces of the prior art in an attempt to arrive at the claimed invention. Accordingly, it is submitted that the Examiner's combination of references is improper.

Accordingly, it is submitted that independent Claims 1, 13, 23 and 27 are patentable over the prior art. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

III. CONCLUSION

In view of the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



DAVID S. CARUS
Reg. No. 59,291
Allen, Dyer, Doppelt, Milbrath
& Gilchrist, P.A.
255 S. Orange Avenue, Suite 1401
Post Office Box 3791
Orlando, Florida 32802
407-841-2330
Attorneys for Applicants